EXPERIMENT : 2

Title : Introduction to Python Containers

Objective : To learn Python Container : List and its operations(initialisation of Lists,Nested Lists,Slicing in List elements as well as string,positive and negative index iteration through a list)

Code:

```
#Day2

#Learning about Python containers (List)

#List = In Python, a list is a versatile and widely used data structure that allows you to store a collection of items, such as numbers, strings, or even other objects. Lists are ordered, mutable (which means you can change their contents), and can contain elements of different data types.

#using [10,30] shows python supports nested lists too and all types of data in a single list

L = [1, 'A', "RCCIIT", 15.54, [10,30]]

print(L[0:3])  #Python takes one less value than the final index value

#we are using slicing technique of Python
print(L[-1:-2:-1])          #Forcing to iterate with negative indexes
print(L[4][1])              #Accessing element through nested list
print("List length is : {}".format(len(L)))

print(L[2][3:6])            #Here we are performing slicing in the string of the list's 3rd element
print(L[2][-1:-4:-1])
print(L[2][-3:6])           #Using both positive and negatives indexes for accessing list elements
print(type(L))
```

Output:

```
[1, 'A', 'RCCIIT']
[[10, 30]]
30
List length is : 5
IIT
TII
IIT
<class 'list'>
```

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